

#3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Nobutaka NAKASHIMA, et al.

Title: NOVEL EXPRESSION VECTOR
SUITABLE FOR EXPRESSION
OF RECOMBINANT PROTEIN
AT LOW TEMPERATURE

Appl. No.: Unassigned

Filing Date: 2/11/2005

Examiner: Unassigned

Art Unit: Unassigned

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56.

A copy of each foreign patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), within three (3) months of the filing date of the application.

RELEVANCE OF EACH DOCUMENT

Any document listed on the attached PTO/SB/08 was cited as being relevant during the prosecution of the corresponding International application. A copy of the International Search Report is attached setting forth the portion of each document considered relevant by the examiner. An English-language counterpart of the foreign-language document has not been provided; however, an English language abstract is included. The absence of a full translation or an English-language counterpart document does not relieve the PTO from its duty to consider any submitted document (37 CFR §1.98 and MPEP §609).

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

Date February 11, 2005

By 

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10/524193

MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Date Submitted: February 11, 2005

(use as many sheets as necessary)

Sheet 1 of 2

Application Number Unassigned
 Filing Date 2/11/2005
 First Named Inventor Nobutaka NAKASHIMA
 Group Art Unit Unassigned
 Examiner Name Unassigned
 Attorney Docket Number 081356-0232

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			

FOREIGN PATENT DOCUMENTS

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	A1	WO	96/03521		OPPENHEIM et al.	02/08/1996		
	A2	JP	10-248578		FUJIO, Mizumura Yurie To	09/22/1998		A
	A3	EP	1127943	A2	MARGARIT Y ROS et al.	08/29/2001		
	A4	WO	01/48192	A1	WATSON et al.	07/05/2001		

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	A5	MUJACIC et al., "Cold-inducible cloning vectors for low-temperature protein expression in Escherichia coli: application to the production of a toxic and proteolytically sensitive fusion protein., GENE, 1999, Vol. 238, No. 2, pp. 325-332.	
	A6	DE MOT et al., "Structural analysis of the 6 kb cryptic plasmid pFAJ2600 from Rhodococcus erythropolis NI 86/21 and construction of Escherichia coli-Rhodococcus shuttle vectors., MICROBIOLOGY, 1997, Vol. 143, Pt. 10, pp. 3137-3147.	
	A7	TAKANO et al., "Construction of thiostreptoninducible, high-copy-number expression vectors for use in Streptomyces spp., GENE, 1995, Vol. 166, No. 1, pp. 133-137.	
	A8	ENGUITA et al., "An inducible expression system of histidine-tagged proteins in Streptomyces lividans for one-step purification by Ni ²⁺ affinity chromatography., FEMS MICROBIOL. LETT., 1996, Vol. 137, Nos. 2 to 3, pp. 135-140.	
	A9	LOWELL et al., "Structure of the murine serum amyloid A gene family: Gene conversion., J. BIOL. CHEM., 1986, Vol. 261, No. 18, pp. 8442-8452.	
	A10	KAWAI et al., "Functional annotation of a full-length mouse cDNA collection., NATURE, 2001, Vol. 409, No. 6821, pp. 685-690.	
	A11	VAN DER VLIET et al., "Apolipoprotein A-V: a novel apolipoprotein associated with an early phase of liver regeneration., J. BIOL. CHEM., 2001, Vol. 276, No. 48, pp. 44512-44520.	

Examiner Signature

Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Examiner Name	Unassigned
Attorney Docket Number	081356-0232

Sheet 2 of 2

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	A12	GRUSBY et al., "Molecular cloning of mouse cathepsin D., NUCLEIC ACIDS RES., 1990, Vol. 18, No. 13, p. 4008.	
	A13	DEGEN et al., "Characterization of the cDNA coding for mouse prothrombin and localization of the gene on mouse chromosome 2., DNA CELL BIOL., 1990, Vol. 9, No. 7, pp. 487-498.	
	A14	EVANS et al., "Mouse glandular kallikrein genes. Structure and partial sequence analysis of the kallikrein gene locus., J. BIOL. CHEM., 1987, Vol. 262, No. 17, pp. 8027-8034.	
	A15	BARON et al., "Cloning and characterization of an actin-resistant DNase I-like endonuclease secreted by macrophages., GENE, 1998, Vol. 215, No. 2, pp. 291-301.	
	A16	SHIOKAWA et al., "DLAD, a novel mammalian divalent cation-independent endonuclease with homology to DNase II., NUCLEIC ACIDS RES., 1999, Vol. 27, No. 20, pp. 4083-4089.	
	A17	FERRARI et al., "The mouse gene coding for highm obililty group 1 protein (HMG1)., J. BIOL. CHEM., 1994, Vol. 269, No. 46, pp. 28803-28808.	
	A18	TEKKI-KESSARIS et al., "Characterization of the mouse Kid1 gene and identification of a highly related gene, Kid2," GENE, 1999, Vol. 240, No. 1, pp. 13-22.	
	A19	OLTVAI et al., "Bcl-2 heterodimerizes in vivo with a conserved homolog, Bax, that accelerates programmed cell death," CELL, 1993, Vol. 74, No. 4, pp. 609-619.	
	A20	POSTIC et al., "Cloning and characterization of the mouse glucokinase gene locus and identification of distal liver-specific DNase I hypersensitive sites," GENOMICS, 1995, Vol. 29, No. 3, pp. 740-750.	
	A21	HOLZL et al., "The regulatory complex of Drosophila melanogaster 26S proteasomes. Subunit composition and localization of a deubiquitylating enzyme," J. CELL. BIOL., 2000, Vol. 150, No. 1, pp. 119-130.	
	A22	ROCK et al., "Pantothenate kinase regulation of the intracellular concentration of coenzyme A," J. BIOL. CHEM., 2000, Vol. 275, No. 2, pp. 1377-1383.	
	A23	WONG et al., "Characterization of human and mouse peroxiredoxin IV: evidence for inhibition by Prx-IV of epidermal growth factor- and p53-induced reactive oxygen species," ANTIOXID. REDOX SIGNAL, 2000, Vol. 2, No. 3, pp. 507-518.	

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